

## PATENT COOPERATION TREATY

From the:  
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)	20 JUN 2005
Applicant's or agent's file reference 1003543		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/AU2005/000549	International filing date (day/month/year) 18 April 2005	Priority date (day/month/year) 19 April 2004	
International Patent Classification (IPC) or both national classification and IPC Int. Cl. 7 C02 1/48			
Applicant UDEN, Robert			

## 1. This opinion contains indications relating to the following items:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Box No. I | Basis of the opinion   |
| <input type="checkbox"/> Box No. II           | Priority   |
| <input type="checkbox"/> Box No. III          | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/> Box No. IV           | Lack of unity of invention   |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI           | Certain documents cited  |
| <input type="checkbox"/> Box No. VII          | Certain defects in the international application   |
| <input type="checkbox"/> Box No. VIII         | Certain observations on the international application  |

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer <b>THARU FERNANDO</b> Telephone No. (02) 6283 2486
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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/AU2005/000549

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material  
 in written format  
 in computer readable form
  - c. time of filing/furnishing  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2005/000549

**Box No. V** **Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 3, 6-12	YES
	Claims 1-2, 4-5	NO
Inventive step (IS)	Claims 6-9	YES
	Claims 1-5, 10-12	NO
Industrial applicability (IA)	Claims 1-12	YES
	Claims	NO

**2. Citations and explanations:**

The present invention is directed to a water conditioner that comprises a plate located in a pipe wherein the plate has a number of means on at least one side of it that causes the water to follow a tortuous flow path through the pipe.

The following documents are the closest prior art to the present invention:

- D1 – US 4999106
- D2 – WO 1995/008064
- D3 – US 6701963
- D4 – US 6186179
- D5 – WO 1995/019504

**Novelty and Inventive Step (claims 1-12)**

Document D1 (see especially figures 2 and 3) teaches a liquid conditioning apparatus including a plate comprising inserts (posts) extending up from the plate located in a pipe, wherein the inserts are parallel to the direction of fluid flow.

The features defined by claim 3 is not inventive, as it is within the knowledge of a person skilled in the art to provide the inserts on both sides of the plate such that the posts pass through the plate. Further, Claims 10-12 are not inventive in light of common general knowledge in the art. It would be readily apparent to a person skilled in the art to provide means to direct the fluid flow to the central portion of the conditioning means so that the majority of the flow will be conditioned, and the truncated conical means is simply a way of achieving this. It is also well known in the art of water conditioning to use an EMF to apply power to the apparatus, and therefore claim 12 also lacks an inventive step.

Each of the documents D2-D5 anticipate the features of claim 1, at least, by disclosing flow conditioners that include pipes with plates having means which cause the water flow to adopt a tortuous or convoluted flow path through the pipe, and thereby become conditioned.

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**Supplemental Box - Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Item 2. CITATIONS AND EXPLANATIONS

**Industrial Applicability**

The invention defined in claims 1-12 is industrially applicable.